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## ABSTRACT OF THE DISCLOSURE

A non-/low-toxic, non-hypergolic, propellant formulation generally comprising metal nanoparticles, such as boron, aluminum, or carbon, and one or more fluoro-polymers mixed in in particulate form. The present invention takes advantage of the increased surface area provided by nano-sized metallic particles to enhance the metal's combustion efficiency, or ignitability.

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The inclusion of fluoro-polymers also aids in increasing the combustion efficiency of the metallic nanoparticles due to the presence of halogenic oxidizers. The thermal degradation of a halogenated fluoro-polymer additive in the propellant combustion zone serves to release halogens, thereby improving the combustion of the metallic nanoparticles and increasing the propulsion system's energy output. The present invention's formulation is safe to store and

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handle, environmentally-friendly, and may be economically manufactured to provide for widespread, cost-effective use.